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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,846	12/31/2001	Chen-Hsiang Shih	4425-237	5314

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EXAMINER
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ROHWER, JACOB P

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/029,846	<b>Applicant(s)</b> SHIH ET AL.	
	<b>Examiner</b> Jacob P. Rohwer	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>31 Dec 2001</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4, and 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 5,991,515 to Fall et al in view of Patent Number 6,512,856 to Davis.

Regarding claim 1, Fall discloses an apparatus for displaying a document with a plurality of compression models, said apparatus comprising:

An image-processing system (Fig 2b Reference #38) for accepting a request of setting said compression models for said document and processing a plurality of data of said document according to said compression models (Col 8 Lin 59-65), said request from an exterior electric device connected to said apparatus. (Col 8 Lin 34-40 and 62-65)

The reference teaches that the compression algorithms are selected by software routines implemented by CPU (Fig 2a #36). In the reference the CPU is an integral part of the processor (Fig 2a #26). However, there is a computer (Fig 2 #12) that represents an external electric device and the specification discloses that the compression of displayed data is implemented by the processor and accomplished by the computer serving as the external electric device. Furthermore, it is officially noted that it was obvious to one of ordinary skill in the art at the time of the invention to move the CPU

element of the processor (Fig 2a #36) to the external computer (Fig 2 #12) while maintaining the same functionality of the system. The motivation/suggestion for doing so would be to reduce the cost of the system by using only one CPU instead of two to carry out the same operation. As a result the limitation that the request comes from an exterior electric device connected to the apparatus is obvious from the Fall reference.

Although Fall makes reference to scan lines in the image input data (Col 10 Lin 44-48) he does not expressly disclose the capturing of the document with an image-capturing system for capturing said data of said document, said image-capturing system connected to said image-processing system and comprising a plurality of optic devices.

However, Davis discloses the capturing of the document with an image-capturing system for capturing said data of said document (Col 1 Lin 17-18), said image-capturing system connected to said image-processing system (Col 1 Lin 16-17, note that a computer is often also connected to image-processing systems) and comprising a plurality of optic devices. (Col 1 Lin 18, "lenses" and "mirrors")

The Fall Patent and the Davis Patent are combinable because they are from the same field of endeavor relating to processing a digitized image.

At the time of the invention, it would have been obvious for one of ordinary skill in the art to use the scanning system specified in Davis as the image capturing system serving as the input to the image-processing system disclosed in Fall.

The suggestion/motivation for doing so would have been to easily access and process image data that is not stored on a computer-readable medium, but is in a

printed state. This allows for the image data to be input to the processor by scanning means.

Therefore, it would have been obvious to combine the Fall Patent and the Davis Patent to obtain the invention in claim 1.

Regarding claim 2, which depends from claim 1, Fall further discloses the apparatus of claim 1, wherein said image-processing system further comprises outputting said data of said document according to said compression models to said exterior electric device. (Col 8 Lin 48-51 Computer sends compressed data, processed in the processing section, to a storage device, meaning the processor must output data to the computer (Fig 2 Reference #12), the exterior electric device.)

Regarding claim 3, which depends from claim 1, Davis further discloses the apparatus of claim 1 wherein said apparatus comprises a scanner. (Col 1 Lin 16-18)

Regarding claim 4, which depends from claim 3, the combination of Fall and Davis further discloses the apparatus of claim 3, wherein said compression models have a plurality of different compression ratios among said compression models. (Fall Col 3 Lin 1-6)

Regarding claim 9, please see the rejection of claim 1. Furthermore, the apparatus of claim 1 performs the method of claim 9.

Regarding claim 10, which depends from claim 9, the combination of Fall further discloses the method of claim 9 further comprising assigning said compression models to said document through an editing tool (Fig 2b Reference #403, Col 9 Lin 17-20 Selector determines object to be compressed by ASIC (Fig 2a #38) which is provided

compression models through software used by computer in Fig 2 #12) provided by a plurality of computer-readable programs. (Col 8 Lin 62-67, Col 9 Lin 1-4)

Regarding claim 11, which depends from claim 9, Davis further discloses a capturing step implemented by a plurality of optic devices. (Col 1 Lin 18)

Regarding claim 12, which depends from claim 9. Please see claim 2 rejection. Furthermore the apparatus of claim 2 performs the method of claim 12.

**Claims 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Fall and Davis as specified above in claim 1, and further in view of US Patent Number 6,735,740 to Sakai.

Regarding claim 5, the combination of Fall and Davis further discloses:

A capturing system for capturing a document with a plurality of compression models, said capturing system comprising:

A plurality of computer-readable programs stored in a computer connected to said capturing system, (Fall Fig 2, Col 8 Lin 62-65)

A processing system for accepting a request of setting said compression models for said document and processing a plurality of data of said document according to said compression models, (Fall Fig 2b Reference #38) said request from said computer; (Fall Fig 2a Reference #36) and

A scanning system connected to said processing system, said scanning system used for capturing said data of said document and transferring said data to said processing system. (Davis Col 1 Lin 16-18)

The combination of Fall and Davis does not expressly disclose that the said computer-readable programs provide a display interface for assigning said compression models to a plurality of zones on said document.

However, Sakai discloses computer-readable programs that provide a display interface (Fig 33 Col 15 Lin 30-37) for assigning said compression models to a plurality of zones on said document. (Col 2 Lin 45-52, a partial image is extracted from a whole document image and processing including any data compression method are applied to the extracted partial image, Fig 9 Reference #20 Col 10 Lin 28-33)

The combination of the Fall and Davis Patents and the Sakai Patent are combinable because they are from the same field of endeavor relating to processing a digitized image, more specifically part of an entire scanned image.

At the time of the invention, it would have been obvious for one of ordinary skill in the art to use the display interface in the Sakai Patent in order to assign and apply compression methods to certain designated areas as specified in the combination of Fall and Davis.

The suggestion/motivation for doing so would have been for a user to easily assign and apply a compression method most suitable to particular attribute areas that make up the entirety of a scanned image.

Therefore, it would have been obvious to combine the Sakai Patent with the combination of Fall and Davis to obtain the invention in claim 5.

Regarding claim 6, which depends from claim 5, the combination of Fall and Davis further in view of Sakai further teaches in Fall, the capturing system of claim 5,

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wherein said compression models are to process said data of said document with a plurality of compression ratios. (Col 9 Lin 50-53)

Regarding claim 7, which depends from claim 5, the combination of Fall and Davis further in view of Sakai further teaches in Davis, the capturing system of claim 5, wherein said scanning system comprises a plurality of photo sensors. (Col 1 Lin 18-20)

**Claim 8 is rejected under 35 U.S.C. 103(a)** as being unpatentable over the combination of Fall, Davis and Sakai as specified above in claim 5, and further in view of US Patent Number 6,804,401 to Nelson.

Regarding claim 8, which depends from claim 5, the combination of Fall, Davis and Sakai discloses the capturing system of claim 5, wherein said processing system comprises outputting said data to said computer. Please see claim 2 rejection.

The combination of Fall, Davis and Sakai does not expressly disclose the capturing system of claim 5, wherein said processing system comprises outputting said compression models to said computer.

However, Nelson teaches processing system that outputs compressed data and the according compression method (Fig 1 Reference #102) used to storage. (Fig 1 Reference #104, Col 3 Lin 9-14)

The combination of the Fall Davis and Sakai Patents with the Nelson Patent are combinable because they are from the same field of endeavor relating to processing and storing a digitized image that according to a specific compression method used.



At the time of the invention, it would have been obvious for one of ordinary skill in the art to output and store the compression method as specified in the Nelson Patent with the compressed data as specified in the combination of Fall, Davis and Sakai.

The suggestion/motivation for doing so would have been to enable decompression according to the compression method used. (Nelson Col 3 Lin 10-12)

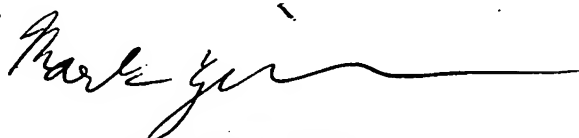
Therefore, it would have been obvious to combine the Nelson Patent with the combination of Fall, Davis and Sakai to obtain the invention in claim 8.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob P. Rohwer whose telephone number is 571-272-5509. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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